URS

November 18, 2009

Duke Energy
Miami Fort Generating Station
11021 Brower Road
North Bend, OH 45052

Attention: Ms. Sue Wallace
Chemical Engineer

Re: Results – **November 2009**
Low-Level Mercury Sampling
Miami Fort Generating Station
North Bend, Ohio

In accordance with your request, URS prepared the following letter report transmitting low-level mercury test results for samples collected at the Miami Fort Generating Station located in North Bend, Ohio.

The scope of work involved the sampling of intake and discharge waters from the following sources and analysis of those samples for low-level mercury.

1. River Intake
2. Station 601 (WWT Influent)
   [Samples were collected at this station one detention time before samples collected at Outfall 608]
3. Outfall 608 (WWT Effluent)
   [Samples were collected at this outfall one detention time after samples collected at station 601]
4. Outfall 002 (Pond B Discharge)

Each sample was collected following the required Method 1669: *Sampling Ambient Water for Determination of Trace Metals at EPA Water Quality Criteria Levels* (Sampling Method) and analyzed by Method 1631. At the request of Duke Energy, total metal mercury samples were collected from Station 601 and analyzed by Method 7470A.

Field staff from URS' Cincinnati office conducted the sampling and TestAmerica Laboratories Inc. located in North Canton, Ohio performed the analytical procedures. The analytical procedures included the analyses of a collected sample and duplicate sample (duplicates collected at Outfall 608 and Outfall 002), field blank (field blanks collected at the River Intake, Outfall 608, and Outfall 002), and trip blank.

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URS

The results from the **November 2-3, 2009** sampling event are presented in the attached Table 1. A copy of the laboratory report is enclosed with this letter.

--ooOoo--

URS is pleased to provide continued assistance to Duke Energy in the execution of their environmental monitoring requirements. If there are any questions regarding the content of this report, please do not hesitate to contact the undersigned.

Sincerely,

URS Corporation

Michael A. Wagner
Project Manager

Dennis P. Connair, C.P.G.
Principal

MAW/DPC/Duke Energy-MFS LL Hg 2009
Job No. 14948701

TABLE 1

ANALYTICAL RESULTS
LOW-LEVEL MERCURY
RIVER INTAKE, STATION 601, OUTFALL 608, AND OUTFALL 002 (POND B)

DUKE ENERGY - MIAMI FORT STATION
NORTH BEND, OHIO

Sample ID	Date Sampled / Results (ng/L, parts per trillion)						
	7/1/09	8/3/09	9/1/09	9/21/09	10/1/09	11/2/09	12/X/2009
River Intake	2.3	8.6 B	2.0	NSC	2.3	4.0	
Station 601 (7)	224,000	226,000	NSC	62,400	186,000	NCS	
Station 601 (7)*	NSC	4,600*	58,200*	8,900*	374,000*	NSC	
Station 601 (7)* [duplicate]	NSC	NSC	NSC	NSC	381,000*	NSC	
Station 601 (8)	260,000	956,000	NSC	73,000	237,000	576,000	
Station 601 (8)*	NSC	4,800*	172,000*	314,000*	447,000*	124,000*	
Station 601 (8)*[duplicate]	NSC	NSC	NSC	41,600*	NSC	111,000*	
Outfall 608	110	123 B	63.4	57.7	79.2	183	
Outfall 608 [duplicate]	108	122 B	62.2	58.2	87.1	342	
APB-002	NC	5.8	2.5	NSC	3.6	4.8	
APB-002 [duplicate]	NC	5.3	2.4	NSC	3.8	4.5	
Field Blank (RI-FB)	<0.50	2.8	<0.50	NSC	<0.50	<0.50	
Field Blank (WWT-FB)	<0.50	1.0	0.72	<0.50	0.89	0.62	
Field Blank (AP-FB)	NC	<0.50	<0.50	NSC	<0.50	<0.50	
Trip Blank	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	

Samples collected by URS
Samples analyzed by TestAmerica of North Canton, Ohio
NC - Not Collected. (Ash Pond B Outfall 002 collected quarterly, August and December)
NSC - No Sample Collected [11/2/09 Unit 7 outage]
* = Total mercury analysis utilizing Method 7470A [results converted from ug/L (parts per billion) to ng/L]
B = Low-level mercury detected in associated field blank collected at sampling location

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

PROJECT NO. 1494

MIAMI FORT LLHG

Lot #: A9K040487

Sue Wallace

Duke Energy Corporation
PO Box 5385
Cincinnati, OH 45201

TESTAMERICA LABORATORIES, INC.

Approved for release.
Kenneth J. Kuzior
Project Manager
11/12/2009 3:47 PM

Kenneth J. Kuzior
Project Manager
ken.kuzior@testamericainc.com

November 12, 2009

CASE NARRATIVE

A9K040487

The following report contains the analytical results for ten water samples and one quality control sample submitted to TestAmerica North Canton by Cinergy from the Miami Fort LLHG Site, project number 1494. The samples were received November 04, 2009, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Candance Bonham, Mike Wagner, and Sue Wallace on November 10, 2009. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

All parameters were evaluated to the reporting limit.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Kenneth J. Kuzior, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 13.6°C, with no coolant present.

CASE NARRATIVE (continued)

SAMPLE RECEIVING (continued)

See TestAmerica's Cooler Receipt Form for additional information.

METALS

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

EXECUTIVE SUMMARY - Detection Highlights

A9K040487

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
601 (8) WWT 11/02/09 17:15 001				
Mercury	124	4.0	ug/L	SW846 7470A
Mercury	576000	20000	ng/L	CFR136A 1631E
601 (8) WWT DUP 11/02/09 17:20 002				
Mercury	111	4.0	ug/L	SW846 7470A
RI 11/02/09 18:00 004				
Mercury	4.0	0.50	ng/L	CFR136A 1631E
608 WWT FB 11/03/09 07:18 006				
Mercury	0.62	0.50	ng/L	CFR136A 1631E
608 WWT 11/03/09 07:20 007				
Mercury	183	20.0	ng/L	CFR136A 1631E
608 WWT DUP 11/03/09 07:25 008				
Mercury	342	20.0	ng/L	CFR136A 1631E
OUTFALL 002 11/03/09 08:25 010				
Mercury	4.8	0.50	ng/L	CFR136A 1631E
OUTFALL 002 DUP 11/03/09 08:30 011				
Mercury	4.5	0.50	ng/L	CFR136A 1631E

ANALYTICAL METHODS SUMMARY

A9K040487

PARAMETER	ANALYTICAL METHOD
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Mercury, Low Level Mercury, CVA Fluorescence	CFR136A 1631E

References:

CFR136A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A9K040487

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LNTJP	001	601 (8) WWT	11/02/09	17:15
LNTJX	002	601 (8) WWT DUP	11/02/09	17:20
LNTJ1	003	RI FB	11/02/09	17:45
LNTJ5	004	RI	11/02/09	18:00
LNTJ8	005	TRIP BLANK	11/02/09	
LNTKC	006	608 WWT FB	11/03/09	07:18
LNTKF	007	608 WWT	11/03/09	07:20
LNTKJ	008	608 WWT DUP	11/03/09	07:25
LNTKL	009	OUTFALL 002 FB	11/03/09	08:15
LNTKN	010	OUTFALL 002	11/03/09	08:25
LNTKP	011	OUTFALL 002 DUP	11/03/09	08:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Duke Energy Corporation

Client Sample ID: 601 (8) WWT

TOTAL Metals

Lot-Sample #...: A9K040487-001 **Matrix.....:** WG
Date Sampled...: 11/02/09 17:15 **Date Received..:** 11/04/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9309013						
Mercury	**124**	**4.0**	**ug/L**	**SW846 7470A**	**11/05-11/09/09**	**LNTJP1AC**
		Dilution Factor: 20				
Prep Batch #...: 9309398						
Mercury	**576000**	**20000**	**ng/L**	**CFR136A 1631E**	**11/05-11/09/09**	**LNTJP1AA**
		Dilution Factor: 40000				

Duke Energy Corporation

Client Sample ID: 601 (8) WWT DUP

TOTAL Metals

Lot-Sample #...: A9K040487-002 **Matrix.....:** WG
Date Sampled...: 11/02/09 17:20 **Date Received..:** 11/04/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9309013						
Mercury	**111**	**4.0**	**ug/L**	**SW846 7470A**	**11/05-11/09/09**	**LNTJX1AA**
		Dilution Factor: 20				

Duke Energy Corporation

Client Sample ID: RI FB

TOTAL Metals

Lot-Sample #...: A9K040487-003 **Matrix.....:** WQ
Date Sampled...: 11/02/09 17:45 **Date Received..:** 11/04/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9309398						
Mercury	ND	0.50	ng/L	CFR136A 1631E	11/05-11/06/09	LNTJ11AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: RI

TOTAL Metals

Lot-Sample #...: A9K040487-004 **Matrix.....:** WG
Date Sampled...: 11/02/09 18:00 **Date Received..:** 11/04/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9309398						
Mercury	**4.0**	**0.50**	**ng/L**	**CFR136A 1631E**	**11/05-11/06/09**	**LNTJ51AA**
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: TRIP BLANK

TOTAL Metals

Lot-Sample #...: A9K040487-005 **Matrix.....:** WQ
Date Sampled...: 11/02/09 **Date Received..:** 11/04/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9309398						
Mercury	ND	0.50	ng/L	CFR136A 1631E	11/05-11/06/09	LNTJ81AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: 608 WWT FB

TOTAL Metals

Lot-Sample #...: A9K040487-006 **Matrix.....:** WQ
Date Sampled...: 11/03/09 07:18 **Date Received..:** 11/04/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9309398						
Mercury	**0.62**	**0.50**	**ng/L**	**CFR136A 1631E**	**11/05-11/06/09**	**LNTKC1AA**
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: 608 WWT

TOTAL Metals

Lot-Sample #...: A9K040487-007 **Matrix.....:** WG
Date Sampled...: 11/03/09 07:20 **Date Received..:** 11/04/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9309398						
Mercury	**183**	**20.0**	**ng/L**	**CFR136A 1631E**	**11/05-11/06/09**	**LNTKF1AA**
		Dilution Factor: 40				

Duke Energy Corporation

Client Sample ID: 608 WWT DUP

TOTAL Metals

Lot-Sample #...: A9K040487-008 **Matrix.....:** WG
Date Sampled...: 11/03/09 07:25 **Date Received..:** 11/04/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9309398						
Mercury	**342**	**20.0**	**ng/L**	**CFR136A 1631E**	**11/05-11/06/09**	**LNTKJ1AA**
		Dilution Factor: 40				

Duke Energy Corporation

Client Sample ID: OUTFALL 002 FB

TOTAL Metals

Lot-Sample #...: A9K040487-009 **Matrix.....:** WQ
Date Sampled...: 11/03/09 08:15 **Date Received..:** 11/04/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9309398						
Mercury	ND	0.50	ng/L	CFR136A 1631E	11/05-11/06/09	LNTKL1AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: OUTFALL 002

TOTAL Metals

Lot-Sample #...: A9K040487-010 **Matrix.....:** WG
Date Sampled...: 11/03/09 08:25 **Date Received..:** 11/04/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9309398						
Mercury	**4.8**	**0.50**	**ng/L**	**CFR136A 1631E**	**11/05-11/06/09**	**LNTKN1AA**
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: OUTFALL 002 DUP

TOTAL Metals

Lot-Sample #...: A9K040487-011 **Matrix.....:** WG
Date Sampled...: 11/03/09 08:30 **Date Received..:** 11/04/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 9309398						
Mercury	**4.5**	**0.50**	**ng/L**	**CFR136A 1631E**	**11/05-11/06/09**	**LNTKP1AA**
		Dilution Factor: 1				

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A9K040487 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A9K050000-013 **Prep Batch #...:** 9309013						
Mercury	ND	0.20	ug/L	SW846 7470A	11/05-11/06/09	LNV7M1A2
		Dilution Factor: 1				
MB Lot-Sample #: A9K050000-398 **Prep Batch #...:** 9309398						
Mercury	ND	0.50	ng/L	CFR136A 1631E	11/05-11/06/09	LNXK31AA
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A9K040487 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A9K050000-013 **Prep Batch #...:** 9309013					
Mercury	106	(81 - 123)	SW846 7470A	11/05-11/06/09	LNV7M1CT
		Dilution Factor: 1			
LCS Lot-Sample#: A9K050000-398 **Prep Batch #...:** 9309398					
Mercury	105	(77 - 125)	CFR136A 1631E	11/05-11/06/09	LNXK31AC
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A9K040487 **Matrix.....:** WATER
Date Sampled...: 10/28/09 09:30 **Date Received..:** 10/30/09

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A9J300363-031 **Prep Batch #...:** 9309013							
Mercury	111	(69 - 134)			SW846 7470A	11/05-11/06/09	LNL0Q1DU
	119	(69 - 134)	6.9	(0-20)	SW846 7470A	11/05-11/06/09	LNL0Q1DV

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A9K040487 **Matrix.....:** WG
Date Sampled...: 11/03/09 08:25 **Date Received..:** 11/04/09

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A9K040487-010 **Prep Batch #...:** 9309398							
Mercury	84	(71 - 125)			CFR136A 1631E	11/05-11/06/09	LNTKN1AC
	81	(71 - 125)	2.1	(0-24)	CFR136A 1631E	11/05-11/06/09	LNTKN1AD
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A9K040487 **Matrix.....:** WATER
Date Sampled...: 11/02/09 09:30 **Date Received..:** 11/03/09

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A9K040554-001 **Prep Batch #...:** 9309398							
Mercury	82	(71 - 125)			CFR136A 1631E	11/05-11/09/09	LNT4J1AC
	114	(71 - 125)	6.4	(0-24)	CFR136A 1631E	11/05-11/09/09	LNT4J1AD
		Dilution Factor: 4					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact	Client Project Manager:	Site Contact:	Lab Contact:	COC No:
Company Name: Duke Energy	MIKE WAGNER (URS)	S. Wallace		
Address: Miami Fort Station	Telephone: 513 651 3440	Telephone: (513) 467-4905	Telephone:	1 of 2 COCs
City/State/Zip: N. Bend, Ohio	Email: mike_wagner@urscorp.com			
Phone: (513) 651-3440	sue-wallace@duke-energy.com	TAT if different from below STANDARD ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: MIAMI FORT LL Hg	Method of Shipment/Carrier: HAND DELIVERY			
Project Number: 1494	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Preservation: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered	Analyses: Low Level Hg	To Hg	Sample Specific Notes / Special Instructions:
601(8) WWT	11-02-09	1715		✓					1				4			✓	✓	low level Hg
601(8) WWT DUP		1720		✓					1								✓	Samples may
RI FB		1745		✓									2			✓		have elevated
RI		1800		✓									4			✓		Hg concentrations.
TRIP BLANK	—	—		✓									2			✓		
608 WWT FB	11-03-09	0718		✓									1			✓		
608 WWT		0720		✓									4			✓		
608 WWT DUP		0725		✓									4			✓		
OUTFALL 002 FB		0815		✓									2			✓		
OUTFALL 002		0825		✓									4			✓		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	URS CORPORATION	11-03-09 / 11:30	Matt Barker	TestAmerica	11-3-09 / 11:30
Relinquished by:	TestAmerica	11/3/09 1345	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TANK	11/4/09 820

TAL-0018 (1008)

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

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TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Duke Energy - Miami Fort Stn.	M. Wagner (CRS Corp)	11-03-09	103140
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 2**
Miami Fort Generating Station	513 651-3440		
City	**State** / **Zip Code**	**Site Contact**	**Lab Contact**
North Bend,	OH	S. Wallace	
Project Name and Location (State)		**Carrier/Waybill Number**	
Miami Fort LL Hg 2009			
Contract/Purchase Order/Quote No.			
1494 8701 . 00100			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis (Attach list if more space is needed): Low Level Hg
OUTFALL 002 Dup	11-03-09	0830		✓			4						4

Special Instructions/ Conditions of Receipt

Low level Hg samples may contain elevated levels of Hg

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Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STANDARD

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.		11-03-09	11:30	Matt Barker	11-3-09	11:30
2.		11/3/09	1345		11/4/09	820
3.						

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 490487
North Canton Facility

Client Duke Energy Project _____ By: _____
Cooler Received on 11/4/09 Opened on 11/4/09 (Signature)
FedEx [X] UPS [ ] DHL [ ] FAS [ ] Stetson [ ] Client Drop Off [ ] TestAmerica Courier [ ] Other _____
TestAmerica Cooler # C319 Multiple Coolers [ ] Foam Box [ ] Client Cooler [X] Other _____

1. Were custody seals on the outside of the cooler(s)? Yes [X] No [ ] Intact? Yes [X] No [ ] NA [ ]
   If YES, Quantity 1 Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes [X] No [ ] NA [ ]
   Were custody seals on the bottle(s)? Yes [ ] No [X]
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes [X] No [ ]
3. Did custody papers accompany the sample(s)? Yes [X] No [ ] Relinquished by client? Yes [X] No [ ]
4. Were the custody papers signed in the appropriate place? Yes [X] No [ ]
5. Packing material used: Bubble Wrap [X] Foam [X] None [ ] Other _____
6. Cooler temperature upon receipt 13.6 °C See back of form for multiple coolers/temps [ ]
   METHOD: IR [X] Other [ ] _____
   COOLANT: Wet Ice [ ] Blue Ice [ ] Dry Ice [ ] Water [ ] None [X]
7. Did all bottles arrive in good condition (Unbroken)? Yes [X] No [ ]
8. Could all bottle labels be reconciled with the COC? Yes [X] No [ ]
9. Were sample(s) at the correct pH upon receipt? Yes [X] No [ ] NA [ ]
10. Were correct bottle(s) used for the test(s) indicated? Yes [X] No [ ]
11. Were air bubbles >6 mm in any VOA vials? Yes [ ] No [ ] NA [X]
12. Sufficient quantity received to perform indicated analyses? Yes [X] No [ ]
13. Was a trip blank present in the cooler(s)? Yes [X] No [ ] Were VOAs on the COC? Yes [ ] No [X]

Contacted PM _____ Date _____ by _____ via Verbal [ ] Voice Mail [ ] Other [ ]
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:
high temp okay Hg & metals.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot# 031909-HNO_3; Sulfuric Acid Lot# 082509-H_2SO_4; Sodium Hydroxide Lot# 100108 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-$(CH_3COO)_2ZN$/NaOH.* What time was preserved added to sample(s)? _____

Client ID	pH	Date	Initials
601	≤2	11/4/09	
601 Dup	≤2		

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler	Temp °C	Method	Coolant

Discrepancies Cont'd

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END OF REPORT